Appendix B

Summary Milestones

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Chapter 2

Module A: Identification of Federally Regulated HW Tanks

Have all Federally regulated hazardous waste tanks been identified?

To determine how HW tanks at your facility are regulated:

- All HWs in tanks must be identified;
- All exempted HW tanks must be identified; and
- The status of the state's regulatory program must be determined.

Module B: Classification of Hazardous Waste Tanks by Age

Have all of the hazardous waste tanks been categorized according to age?

Tanks that meet the following criterion are categorized as "new" tanks:

- Installation of the HW tank commenced after July 14, 1986.

Tanks that meet the following criterion are categorized as "existing" tanks:

- Installation of the HW tank commenced on or before July 14, 1986.

Chapter 3

Module A: Integrity Testing for Existing Tanks

Has the structural integrity of the existing HW tanks been certified?

Existing tanks that lack secondary containment:

- Must have been assessed by January 12, 1988; or
- Must be assessed within 12 months of the date that a non-hazardous waste in a tank is designated as HW by EPA.

Existing HW tanks that were found to be leaking or otherwise unfit for service must be repaired or replaced as necessary before being certified and returned to use.

Chapter 4

Module A: Design, Installation, and Assessment of New Tank Systems or Components

Has the tank been adequately designed, installed, and assessed?

- The design must be adequate to provide safe containment of the HW; and
- The installation and subsequent inspection of the installation must ensure that the installation process has not damaged the HW tank.

Chapter 5

Module A: Applicability of Organic Air Emission Control Requirements to Hazardous Waste Tanks

Is the HW tank exempted from 40 CFR Part 264, Subpart CC regulations?

Exempted tanks include, but are not limited to, those which:

- Are no longer receiving HW after December 6, 1996;
- Are no longer receiving HW and are being closed pursuant to an approved closure plan;
- Are being used for on-site treatment of HW generated as a result of remedial activities; or
- Are being used solely for the management of radioactive mixed waste.

Module B: General Organic Air Emission Control Requirements

Has the owner/operator complied with the general organic air emission control requirements?

After selecting Tank Level 1 or Tank Level 2, the owner/operator must install and operate the appropriate cover or tank type and controls in accordance with unit/cover-specific procedures and operational requirements.

Module C: Requirements for Closed-vent Systems and Control Devices

Has the owner/operator chosen to use a control device other than one described in 40 CFR 264.1087(c)(1)?

- An owner/operator may use a device other than a flare, thermal vapor incinerator, boiler, process heater, condenser, or carbon adsorption system if the device is operated in accordance with 40 CFR 264.1033(j).

Module D: Inspection and Monitoring Requirements

Has the owner/operator developed a written inspection program for all regulated HW tank covers?

All regulated HW tank covers must be maintained in a closed position unless:

- Performing routine inspection, maintenance, or other activities needed for normal operations;
- Removing accumulated sludge or other residues from the tank bottom;
- Opening of a some type of pressure relief device (e.g., conservation vent); or
- Opening of a "safety device" to avoid an unsafe condition..

Module E: Recordkeeping Requirements

Has the owner/operator maintained all records in accordance with 40 CFR 264.1089?

- Unless the regulations state otherwise, all records required by 40 CFR Part 264/265, Subpart CC, must be kept in the facility's operating record for a minimum of 3 years.

Module F: Reporting Requirements

Has an episode of noncompliance occurred?

Noncompliance occurs whenever:

- HW with an average VO concentration equal to or greater than 500 ppmw at the point of waste origination is placed in an exempted tank;
- A treated HW whose organic content has not been sufficiently reduced is placed in an exempted HW tank;
- A control device has emissions exceeding the applicable operating values; or
- A flare operates with visible emissions.

Chapter 6

Module A: Operating Requirements

Have proper operating procedures been implemented?

The following elements must be completed to safely operate HW tanks:

- Proper spill prevention procedures and equipment must be utilized; and
- All ignitable, reactive, or incompatible HWs must be neutralized before placement in tanks (unless placement is in response to an emergency situation).

Module B: Inspection Requirements

Has an adequate inspection program been implemented?

- Many components of the HW tank system require inspection on a daily basis; and
- Proper documentation in the facility's inspection log is required.

Chapter 7

Module A: Secondary Containment Requirements

Does the HW tank have adequate secondary containment?

The secondary containment chosen for the HW tank must be:

- One listed in 40 CFR 264/265.193; or
- An equivalent device approved by a Regional Administrator of the EPA.

Module B: Secondary Containment: Variance Requirements

Does the owner or operator wish to obtain a variance from the secondary containment requirements?

To obtain a variance, the owner or operator must be able to demonstrate to a Regional Administrator of the EPA that the alternative design will:

- Prevent the migration of any HW into the groundwater and/or surface water at least as effectively as secondary containment; or
- Assure that if a release of HW does migrate to groundwater and/or surface water, the release would not pose a substantial present or potential hazard to human health or the environment.

Module C: Responding to Releases from HW Tanks that have Received a Variance

Has a release occurred from a HW tank for which a variance has been granted?

- If the variance is **technology-based**, the owner or operator must determine whether or not the release has migrated beyond the zone of engineering control before formulating a response to the release; or
- If the variance is **risk-based**, the owner or operator does not have to make the same release-migration determination as described above. Instead, the owner or operator should proceed to Chapter 7, "Module A: Response to Leaks or Spills," before formulating a response to the release.

Chapter 8

Module A: Response to Leaks or Spills

Has the response to a leak or spill been appropriate?

After a leak or spill from a HW tank system has been confirmed, steps must be taken immediately to:

- Prevent the release of more waste to the environment;
- Inspect, repair, or replace the tank;
- Remediate affected soil, groundwater, and/or surface water as necessary; and
- Notify the appropriate authorities of the release.

Module B: Release Reporting

Have all proper authorities been notified of the release of HW from a tank system?

The owner or operator must determine the amount of HW released and:

- If ≥ one pound of HW is released, notify the NRC, the appropriate Regional Administrator of the EPA, etc. as necessary; or
- If the spill is less than one pound and immediately cleaned up, no notification is required.

Chapter 9

Module A: Accumulation Time Requirements

Is the HW generator accumulating HW on-site in compliance with 40 CFR 262.34?

The HW generator is in compliance if:

- HW is not accumulated on-site for more than 90 days without the approval of the Regional Administrator;
- The date upon which the accumulation period began and the words "Hazardous Waste" are clearly marked on the tank;
- The generator complies with the requirements of 40 CFR Part 265 Subpart J, except 40 CFR 265.197(c) (Closure and Post-closure Care) and 265.200 (Waste Analysis and Trial Tests);
- The waste analysis requirements of 40 CFR 268.7 are met; and
- The requirements of 40 CFR Part 265, Subpart AA (Air Emission Standards for Process Vents) and Subpart BB (Air Emission Standards for Equipment Leaks) are met.

Module B: Small Quantity Generator Requirements

Is the generator a small quantity generator?

Small quantity generators are those who:

- Accumulate more than 100 but less than 1,000 kilograms of HW in a calendar month;
- Store the HW on-site for less than 180 days (or 270 days if the generator must ship the HW greater than 200 miles); and
- Accumulate less than 6,000 kilograms of HW at any time.

Is the small quantity generator conditionally exempt?

Conditionally exempt small quantity generators are those who generate less than:

- 100 kilograms per month of hazardous waste;
- 1 kilogram per month of acutely hazardous waste; or
- 100 kilograms per month of any residue, soil, or debris resulting from the cleanup of a spill and contaminated with an acutely hazardous waste.

Chapter 10

Module A: HW Tank Closure Requirements

Does the HW tank system either have secondary containment or a variance from the secondary containment requirements?

- If yes, then the HW tank may plan to close as a HW tank.
- If no, then contingent plans for the closure and post-closure care of this tank in the same manner as a HW landfill must be developed.

Can all HW residues, contaminated containment system components, soils, structures, and equipment be removed or decontaminated?

- If yes, then the HW tank may close as a HW tank.
- If no, then the HW tank must close in the same manner as a HW landfill.

Module B: HW Tanks Closing in the Same Manner as HW Landfills

Is the closure and post-closure care of the HW tank in compliance with the HW landfill requirements?

Each tank closed in the same manner as a HW landfill must comply with all of the following:

- The tank must be covered with an adequate final cover;
- The closure certification must be submitted;
- All post-closure requirements (e.g., security measures, deed notation) must be met; and
- Adequate leak detection measures must be implemented.

Appendix C

References

Appendix C
References

1. "Regulated Underground Storage Tanks," U.S. Department of Energy, Office of Environmental Guidance, (DOE/EH-231-004/0191), June 1992.

2. "Definition of Solid and Hazardous Wastes," U.S. Department of Energy, Office of Environmental Guidance (DOE/EH-0273), August 1992.

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4. "Technical Resource Document for the Storage and Treatment of Hazardous Wastes in Tank Systems," United States Environmental Protection Agency, December 1986.

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19. "Delay of Closure for RCRA Hazardous Waste Management Facilities," U.S. Department of Energy, Office of Environmental Guidance, (EH-231-021/0993), September 1993.

20. "RCRA and CERCLA Requirements Associated with the Sale or Transfer of DOE Property," U.S. Department of Energy, Office of Environmental Guidance, (EH-231-022/1193), November 1993.

21. RQ●CALCULATOR, Version 1, U.S. Department of Energy, Office of Environmental Policy and Assistance, 1995.

Appendix D

List of CFR Title 40 Citations

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40 CFR 124

40 CFR 124	(Procedures for Decisionmaking)

40 CFR 260

40 CFR 260.10	(Definitions)

40 CFR 261

40 CFR 261	(Identification and listing of hazardous waste)
40 CFR 261	(Subpart D) (Lists of hazardous wastes)
40 CFR 261.2	(Definition of solid waste)
40 CFR 261.3	(Definition of hazardous waste)
40 CFR 261.5	(Special requirements for hazardous waste generated by conditionally exempt small quantity generators)
40 CFR 261.6	(Requirements for recyclable materials)
40 CFR 261.21	(Characteristic of ignitability)
40 CFR 261.22	(Characteristic of corrosivity)
40 CFR 261.23	(Characteristic of reactivity)

40 CFR 262

40 CFR 262.34	(Accumulation time)
40 CFR 262.53	(Notification of intent to export)
40 CFR 262.56	(Annual reports)
40 CFR 262.57	(Recordkeeping)

40 CFR 264/265

40 CFR 264	(Standards for owners and operators of hazardous waste treatment, storage, and disposal facilities
40 CFR 265	(Interim status standards for owners and operators of hazardous waste treatment, storage, and disposal facilities)
40 CFR 264/265	Subpart F (Releases from solid waste management units)
40 CFR 264/265	Subpart G (Closure and post-closure)
40 CFR 264/265	Subpart AA (Air Emission Standards for Process Vents)
40 CFR 264/265	Subpart BB (Air Emission Standards for Equipment Leaks)
40 CFR 264/265	Subpart CC (Air Emission Standards for Tanks, Surface Impoundments, and Containers)
40 CFR 264/265.1	(Purpose, scope, and applicability)
40 CFR 264/265.13	(General waste analysis)
40 CFR 264/265.14	(Security)
40 CFR 264/265.15	(General inspection requirements)
40 CFR 265.16	(Personnel training)
40 CFR 264/265.17	(General requirements for ignitable, reactive, or incompatible wastes)
40 CFR 264/265.18	(Location standards)

40 CFR 264/265.112	(Closure plan: amendment of plan)
40 CFR 264/265.113	(Closure: time allowed for closure)
40 CFR 264/265.115	(Certification of closure)
40 CFR 264/265.116	(Survey plat)
40 CFR 264/265.117(c)	(Post-closure care and use of property)
40 CFR 264/265.118	(Post-closure plan: amendment of plan)
40 CFR 264/265.119	(Post-closure notices)
40 CFR 264/265.120	(Certification of completion of post-closure care)
40 CFR 264/265.143(i)	(Financial assurance for closure)
40 CFR 264/265.145(i)	(Financial assurance for post-closure care)
40 CFR 264/265.190	(Applicability)
40 CFR 264/265.191	(Assessment of existing tank system's integrity)
40 CFR 264/265.192	(Design and installation of new tank systems or components)
40 CFR 264/265.193	(Containment and detection of releases)
40 CFR 264/265.194	(General operating requirements)
40 CFR 264/265.195	(Inspections)
40 CFR 264/265.196	(Response to leaks or spills and disposition of leaking or unfit-for-use tank systems)
40 CFR 264/265.197	(Closure and post-closure care)
40 CFR 264/265.198	(Special requirements for ignitable or reactive wastes)
40 CFR 264/265.199	(Special requirements for incompatible wastes)
40 CFR 264.301(c)(3)	(Design requirements)
40 CFR 264/265.302	(General operating requirements)
40 CFR 264/265.309	(Surveying and recordkeeping)
40 CFR 264/265.310	(Closure and post-closure care)

40 CFR 265

40 CFR 265	(Interim status standards for owners and operators of hazardous waste treatment, storage, and disposal facilities)
40 CFR 265.73	(Operating record)
40 CFR 265.111	(Closure performance standard)
40 CFR 265.194	(General operating requirements)
40 CFR 265.197	(Closure and post-closure care)
40 CFR 265.200	(Waste analysis and trial tests)
40 CFR 265.201	(Special requirements for generators of between 100 and 1,000 kg/mo that accumulate hazardous waste in tanks)

40 CFR 266

40 CFR 266	(Standards for the management of specific hazardous wastes and specific types of hazardous waste management facilities)

40 CFR 268

40 CFR 268.7(a)(4)	(Waste analysis)

40 CFR 270

40 CFR 270.11(d)	(Signatories to Permit Applications and Reports)
40 CFR 270.14	(Contents of Part B: General requirements)

40 CFR 270.16	(Specific Part B information requirements for tank systems)
40 CFR 270.27	(Specific Part B information requirements for air emission controls for tanks, surface impoundments, and containers)
40 CFR 270.32	(Establishing permit conditions)

40 CFR 271

40 CFR 271	(Requirements for authorization of state hazardous waste programs)
40 CFR 271.1	(Purpose and scope)

40 CFR 302

40 CFR 302	(Designation, reportable quantities, and notification)
40 CFR 302.4	(Designation of hazardous substances)